

09/4371667

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NEWS 14 JUL 19 Coverage of Research Disclosure reinstated in DWPI
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NEWS 16 AUG 28 ADISCTI Reloaded and Enhanced
NEWS 17 AUG 30 CA(SM)/CAplus(SM) Austrian patent law changes
NEWS 18 SEP 11 CA/CAplus enhanced with more pre-1907 records
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FILE 'TULSA2' ENTERED AT 16:09:37 ON 25 SEP 2006
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FILE 'USPATFULL' ENTERED AT 16:09:37 ON 25 SEP 2006
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FILE 'USPAT2' ENTERED AT 16:09:37 ON 25 SEP 2006
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FILE 'WPINDEX' ACCESS NOT AUTHORIZED

FILE 'WPIX' ENTERED AT 16:09:37 ON 25 SEP 2006
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=> s (Mn or manganese) and soil and (hyperaccumulat? or phytoremediat? or phytoextract?)
16 FILES SEARCHED...
41 FILES SEARCHED...
L1 790 (MN OR MANGANESE) AND SOIL AND (HYPERACCUMULAT? OR PHYTOREMEDIAT?
? OR PHYTOEXTRACT?)

=> s l1 not PY>1995
9 FILES SEARCHED...
10 FILES SEARCHED...
26 FILES SEARCHED...
'1995' NOT A VALID FIELD CODE
30 FILES SEARCHED...
'1995' NOT A VALID FIELD CODE
42 FILES SEARCHED...
L2 20 L1 NOT PY>1995

=> s (Mn or Ni or Co or cobalt or nickel or manganese) and soil (3a) pH and
(phytoremediat? or phytoextract? or hyperaccumulat?)
16 FILES SEARCHED...
30 FILES SEARCHED...
L3 163 (MN OR NI OR CO OR COBALT OR NICKEL OR MANGANESE) AND SOIL (3A)
PH AND (PHYTOREMEDIAT? OR PHYTOEXTRACT? OR HYPERACCUMULAT?)

=> s l3 not PY>1995
9 FILES SEARCHED...
10 FILES SEARCHED...
26 FILES SEARCHED...
'1995' NOT A VALID FIELD CODE
30 FILES SEARCHED...
'1995' NOT A VALID FIELD CODE
42 FILES SEARCHED...
L4 7 L3 NOT PY>1995

=> dup remov
ENTER L# LIST OR (END):12
DUPLICATE IS NOT AVAILABLE IN 'CAOLD, DGENE, DPCI, IMSPATENTS, LITALERT,
PATDPASPC, PCTGEN, PROUSDDR, PS, RDISCLOSURE, SYNTHLINE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L2
L5 16 DUP REMOV L2 (4 DUPLICATES REMOVED)

```
=> remov dup 14  
DUP IS NOT VALID HERE  
The DELETE command is used to remove various items stored by the system.
```

To delete a saved query, saved answer set, saved L-number list, SDI request, batch request, mailing list, or user-defined cluster, format, or search field, enter the name. The name may include ? for left, right, or simultaneous left and right truncation.

Examples:

DELETE BIO?/Q	- delete query names starting with BIO
DELETE ?DRUG/A	- delete answer set names ending with DRUG
DELETE ?ELEC?/L	- delete L-number lists containing ELEC
DELETE ANTICOAG/S	- delete SDI request
DELETE ENZYME/B	- delete batch request
DELETE .MYCLUSTER	- delete user-defined cluster
DELETE .MYFORMAT	- delete user-defined display format
DELETE .MYFIELD	- delete user-defined search field
DELETE NAMELIST MYLIST	- delete mailing list

To delete an ordered document or an offline print, enter its number.

Examples:

DELETE P123001C	- delete print request
DELETE D134002C	- delete document order request

To delete an individual L-number or range of L-numbers, enter the L-number or L-number range. You may also enter DELETE LAST followed by a number, n, to delete the last n L-numbers. RENUMBER or NORENUMBER may also be explicitly specified to override the value of SET RENUMBER.

Examples:

DELETE L21	- delete a single L-number
DELETE L3-L6	- delete a range of L-numbers
DELETE LAST 4	- delete the last 4 L-numbers
DELETE L33-	- delete L33 and any higher L-number
DELETE -L55	- delete L55 and any lower L-number
DELETE L2-L6 RENUMBER	- delete a range of L-numbers and renumber remaining L-numbers
DELETE RENUMBER	- renumber L-numbers after deletion of intermediate L-numbers

Entire sets of saved items, SDI requests, batch requests, user-defined items, or E-numbers can be deleted.

Examples:

DELETE SAVED/Q	- delete all saved queries
DELETE SAVED/A	- delete all saved answer sets
DELETE SAVED/L	- delete all saved L-number lists
DELETE SAVED	- delete all saved queries, answer sets, and L-number lists
DELETE SAVED/S	- delete all SDI requests
DELETE SAVED/B	- delete all batch requests
DELETE CLUSTER	- delete all user-defined clusters
DELETE FORMAT	- delete all user-defined display formats
DELETE FIELD	- delete all user-defined search fields

```
DELETE SELECT - delete all E-numbers
DELETE HISTORY - delete all L-numbers and restart the
session at L1
```

To delete an entire multifile SDI request, enter DELETE and the name of the request. To delete a component from the multifile SDI, enter DELETE and the name of the component.

```
=> dup remov 14
DUPLICATE IS NOT AVAILABLE IN 'CAOLD, DGENE, DPCI, IMSPATENTS, LITALERT,
PATDPASPC, PCTGEN, PROUSDDR, PS, RDISCLOSURE, SYNTHLINE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L4
L6          6 DUP REMOV L4 (1 DUPLICATE REMOVED)

=> d his
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FILE 'CAPLUS, MEDLINE, BIOSIS, AGRICOLA, CABA, CAOLD, CASREACT, CROPU,
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SEP 2006
L1          790 S (MN OR MANGANESE) AND SOIL AND (HYPERACCUMULAT? OR PHYTOREMED
L2          20 S L1 NOT PY>1995
L3          163 S (MN OR NI OR CO OR COBALT OR NICKEL OR MANGANESE) AND SOIL (3
L4          7 S L3 NOT PY>1995
L5          16 DUP REMOV L2 (4 DUPLICATES REMOVED)
L6          6 DUP REMOV L4 (1 DUPLICATE REMOVED)
```

```
=> d 16 1-6
L6  ANSWER 1 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
AN  1995:553662 CAPLUS
DN  122:273182
TI  Zinc and Cadmium Uptake by Hyperaccumulator Thlaspi caerulescens
    and Metal Tolerant Silene vulgaris Grown on Sludge-Amended Soils
AU  Brown, Sally L.; Chaney, Rufus L.; Angle, J. Scott; Baker, Alan J. M.
CS  Department of Agronomy, University of Maryland, College Park, MD, 20742,
    USA
SO  Environmental Science and Technology (1995), 29(6), 1581-5
    CODEN: ESTHAG; ISSN: 0013-936X
PB  American Chemical Society
DT  Journal
LA  English

L6  ANSWER 2 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN
AN  1994029466 PCTFULL ED 20020513
TIEN  PHYTOREMEDIATION OF METALS
TIFR  PHYRODECONTAMINATION DE SOLS CONTAMINES PAR DES METAUX
IN  RASKIN, Ilya;
    KUMAR, Nanda, P., B., A. ;
    DOUCHENKOV, Slavik
PA  PHYTOTECH, INC.
LA  English
DT  Patent
PI  WO 9429466           A1 19941222
DS  W:                   AT AU BR BY CA CN CZ HU JP PL RU SK UA AT BE CH DE DK ES
    FR GB GR IE IT LU MC NL PT SE
AI  WO 1994-US6178       A 19940602
PRAI US 1993-8/073,258     19930604
      US 1994-8/252,234     19940601
ICM  C12N015-82
```

ICS B09B003:00; A01H005:00

L6 ANSWER 3 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN
AN 1994025628 PCTFULL ED 20020513
TIEN METHOD FOR ACCELERATED BIOREMEDIALATION AND METHOD OF USING AN APPARATUS
THEREFOR
TIFR PROCEDE DE BIORESTAURATION ACCELEREE ET D'UTILISATION D'UN APPAREIL
PREVU A CET EFFET
IN GLAZE, Bradley, S.;
WARNER, Kenneth, R.;
HORN, Terry, Dean;
HORN, Ronald, Dean
PA GLAZE, Bradley, S.;
WARNER, Kenneth, R.;
HORN, Terry, Dean;
HORN, Ronald, Dean
LA English
DT Patent
PI WO 9425628 A1 19941110
DS W: AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB HU JP KP KR
KZ LK LU LV MG MN MW NL NO NZ PL PT RO RU SD SE SK UA UZ
VN AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ
CF CG CI CM GA GN ML MR NE SN TD TG
AI WO 1994-US3829 A 19940406
PRAI US 1993-8/043,666 19930406
US 1994-not furnished 19940405
ICM C12S013-00
ICS A62D003:00; C22B061:00

L6 ANSWER 4 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN
AN 1994001367 PCTFULL ED 20020513
TIEN A METHOD OF OBTAINING LEAD AND ORGANOLEAD FROM CONTAMINATED MEDIA USING
METAL ACCUMULATING PLANTS
TIFR PROCEDE D'EXTRACTION DE PLOMB ET DE PLUMB ORGANIQUE DE MILIEUX
CONTAMINES A L'AIDE DE PLANTES EMMAGASINANT LES METAUX
IN CUNNINGHAM, Scott, Daniel
PA E.I. DU PONT DE NEMOURS AND COMPANY
LA English
DT Patent
PI WO 9401367 A1 19940120
DS W: CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
AI WO 1993-US5996 A 19930628
PRAI US 1992-7/908,279 19920702
ICM C02F003-32
ICS C22B013:00

L6 ANSWER 5 OF 6 USPATFULL on STN
AN 94:99509 USPATFULL
TI Phytoremediation of metals
IN Raskin, Ilya, Manalapan, NJ, United States
Kumar, Nanda P. B. A., New Brunswick, NJ, United States
Douchenkov, Slavik, East Brunswick, NJ, United States
PA PhytoTech, Inc., Morristown, NJ, United States (U.S. corporation)
PI US 5364451 19941115
AI US 1993-73258 19930604 (8)
DT Utility
FS Granted
LN.CNT 671
INCL INCLM: 075/710.000
INCLS: 071/009.000; 210/602.000; 210/682.000; 210/688.000
NCL NCLM: 075/710.000
NCLS: 071/009.000; 210/602.000; 210/682.000; 210/688.000
IC [5]
ICM C21B009-00

ICS C22B009-00
IPCI C21B0009-00 [ICM,5]; C22B0009-00 [ICS,5]
IPCR B09C0001-10 [I,A]; B09C0001-10 [I,C*]; C12N0015-82 [I,A];
C12N0015-82 [I,C*]
EXF 075/710; 210/602; 210/682; 210/688; 071/9
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 6 OF 6 USPATFULL on STN
AN 94:51052 USPATFULL
TI Method of obtaining lead and organolead from contaminated media using metal accumulating plants
IN Cunningham, Scott D., Chaddsford, PA, United States
PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States (U.S. corporation)
PI US 5320663 19940614
AI US 1992-908279 19920702 (7)
DT Utility
FS Granted
LN.CNT 763
INCL INCLM: 075/432.000
INCLS: 210/602.000; 435/262.000; 435/267.000; 588/231.000
NCL NCLM: 075/432.000
NCLS: 210/602.000; 435/262.000; 435/267.000
IC [5]
ICM C12S001-00
ICS C07G017-00; A62D003-00; C02F003-32
IPCI C12S0001-00 [ICM,5]; C07G0017-00 [ICS,5]; A62D0003-00 [ICS,5];
C02F0003-32 [ICS,5]
IPCR C02F0003-32 [I,A]; C02F0003-32 [I,C*]; C22B0003-00 [I,C*];
C22B0003-18 [I,A]; C22B0013-00 [I,A]; C22B0013-00 [I,C*]
EXF 435/262; 435/267; 210/602; 588/231; 405/129; 075/432; 424/195.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d 16 6 kwic

L6 ANSWER 6 OF 6 USPATFULL on STN
SUMM . . . known to be toxic to most wildlife and man in relatively low concentrations. Elements such as lead, platinum, mercury, cadmium, cobalt, zinc, tin, arsenic, and chromium are used in many industrial applications and often significant levels of these metals are found. . . metals are also found in organic form such as organoarsenic and organotin, used as pesticides or herbicides, as well as nickel tetracarbonyl and tetraethyllead produced as by-products of the petroleum industry.
SUMM . . . plant's response to a metalliferous environment ranges from active exclusion of the metallic species to tolerance to accumulation and even hyperaccumulation where concentrations may approach greater than 1% of plant dry matter. The phenomenon of accumulation and hyperaccumulation of metals by plants has been demonstrated over a wide range of plant families and to date it has not been possible to predict which plants of which families will function as metal accumulators and/or hyperaccumulators. Further complicating the issue is the fact that plants that might be classified as hyperaccumulators of one metal species may be barely tolerant of another. Hence the phenomenon is specific not only for plant type. . . "Plants: Evolutionary Aspects" A. J. Shaw (ed.) CRC Press (1989)) For example various species of Alyssum are known to be hyperaccumulators of nickel reaching levels of 13400 ugNi/g but do not appear to be hyperaccumulators of other metals. Thlaspi sp. on the other hand demonstrate hyperaccumulation of a variety of metals including nickel, zinc, and lead. To date the plant that has shown the greatest ability. . . Metal Tolerance in Plants: Evolutionary Aspects", A. J. Shaw (ed.) CRC Press (1989)) A summary of

many of the known hyperaccumulators is included in Baker et al., Terrestrial high plants which hyperaccumulate metallic elements--a review of their distribution, ecology and phytochemistry, Biorecovery, 1, 81, (1989) herein incorporated by reference.

SUMM The work surrounding the studies of accumulation and hyperaccumulation of metals by plants has been focused in the areas of using these plants as indicators of metal contamination and constituents In: "Land Treatment of Hazardous Wastes", Parr et al. (ed.) Noyes Data Corporation New Jersey (1983). Chaney notes that hyperaccumulators of nickel, and copper are known to accumulate these metals to as much as 1% of dry plant weight and . . .

SUMM . . . (Ambrosia artemisiifolia) and smartweed (*Polygonum pennsylvanicum*) isolated from a municipal landfill for concentrations of various heavy metals including Mn, Cu, Co, Cr, and Pb. The highest concentration of Pb that was recorded for either plant was 3.68 ppm dry weight of the plant. Mense does not teach accumulation or hyperaccumulation of lead by ragweed or dogbane.

SUMM The term "hyperaccumulator" refers to any plant that is capable of accumulating a metal species to levels equal to or greater than 10,000. . .

SUMM . . . rate of the plants and the bio-availability of lead in the soil. In the case of lead remediation the preferred pH of the soil is in a range of pH5-pH8. Phosphate is a requirement for ragweed or dogbane growth and soil is amended to. . .

DETD . . . (conc) mM
nutr.
in uM

1	0.32	KH ₂ PO ₄	136.09	1	P	0.010	Fe	10.0
2	202.0	KNO ₃	101.1	1	K	1.5	Mn	1.0
3	493.0	MgSO ₄ ·7H ₂ O	246.5	1	Ca	2.0	B	1.0
4	472.0	Ca(NO ₃) ₂ ·2.4H ₂ O	236.16	2	Mg	1.0	Cu	0.2
5	5.6. . . 18.6	Na ₂ EDTA·2H ₂ O	372.24					
6	74.6	KCl	74.55	1	N	5.0	Mo	0.2
7	0.124	H ₃ BO ₃	61.84	1	Cl	0.5	Ni	0.13
1-7 in all	0.338	MnSO ₄ ·H ₂ O	169.01			Co	0.13	
nutrient								
	0.576	ZnSO ₄ ·7H ₂ O	287.54		EDTA			25.0
solutions								
	0.100	CuSO ₄ ·5H ₂ O	249.75		Pb	4.8		
	0.576	MoO ₃	143.94					
	0.060	CoCl ₂ ·6H ₂ O						

DETD . . . nutrient medium defined in Table I. An identical set of seedlings were transplanted in METROMIX potting soil (Grace/Sierra Horticultural Products Co. Milpitas, Calif.) containing no lead as indicators of normal plant growth. All plants were grown for 30 days in a . . .

=> d 16 1-5

L6 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
AN 1995:553662 CAPLUS
DN 122:273182
TI Zinc and Cadmium Uptake by Hyperaccumulator *Thlaspi caerulescens* and Metal Tolerant *Silene vulgaris* Grown on Sludge-Amended Soils
AU Brown, Sally L.; Chaney, Rufus L.; Angle, J. Scott; Baker, Alan J. M.
CS Department of Agronomy, University of Maryland, College Park, MD, 20742, USA
SO Environmental Science and Technology (1995), 29(6), 1581-5
CODEN: ESTHAG; ISSN: 0013-936X
PB American Chemical Society
DT Journal
LA English

L6 ANSWER 2 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN
AN 1994029466 PCTFULL ED 20020513
TIEN PHYTOREMEDIATION OF METALS
TIFR PHYRODECONTAMINATION DE SOLS CONTAMINES PAR DES METAUX
IN RASKIN, Ilya;
KUMAR, Nanda, P., B., A.;
DOUCHENKOV, Slavik
PA PHYTOTECH, INC.
LA English
DT Patent
PI WO 9429466 A1 19941222
DS W: AT AU BR BY CA CN CZ HU JP PL RU SK UA AT BE CH DE DK ES
FR GB GR IE IT LU MC NL PT SE
AI WO 1994-US6178 A 19940602
PRAI US 1993-8/073,258 19930604
US 1994-8/252,234 19940601
ICM C12N015-82
ICS B09B003:00; A01H005:00

L6 ANSWER 3 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN
AN 1994025628 PCTFULL ED 20020513
TIEN METHOD FOR ACCELERATED BIOREMEDIATION AND METHOD OF USING AN APPARATUS THEREFOR
TIFR PROCEDE DE BIORESTAURATION 'ACCELEREE ET D'UTILISATION D'UN APPAREIL PREVU A CET EFFET
IN GLAZE, Bradley, S.;
WARNER, Kenneth, R.;
HORN, Terry, Dean;
HORN, Ronald, Dean
PA GLAZE, Bradley, S.;
WARNER, Kenneth, R.;
HORN, Terry, Dean;
HORN, Ronald, Dean
LA English
DT Patent
PI WO 9425628 A1 19941110
DS W: AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB HU JP KP KR
KZ LK LU LV MG MN MW NL NO NZ PL PT RO RU SD SE SK UA UZ
VN AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ

CF CG CI CM GA GN ML MR NE SN TD TG

AI WO 1994-US3829 A 19940406
PRAI US 1993-8/043, 666 19930406
US 1994-not furnished 19940405
ICM C12S013-00
ICS A62D003:00; C22B061:00

L6 ANSWER 4 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN
AN 1994001367 PCTFULL ED 20020513
TIEN A METHOD OF OBTAINING LEAD AND ORGANOLEAD FROM CONTAMINATED MEDIA USING
METAL ACCUMULATING PLANTS
TIFR PROCEDE D'EXTRACTION DE PLOMB ET DE PLUMB ORGANIQUE DE MILIEUX
CONTAMINES A L'AIDE DE PLANTES EMMAGASINANT LES METAUX
IN CUNNINGHAM, Scott, Daniel
PA E.I. DU PONT DE NEMOURS AND COMPANY
LA English
DT Patent
PI WO 9401367 A1 19940120
DS W: CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
AI WO 1993-US5996 A 19930628
PRAI US 1992-7/908, 279 19920702
ICM C02F003-32
ICS C22B013:00

L6 ANSWER 5 OF 6 USPATFULL on STN
AN 94:99509 USPATFULL
TI Phytoremediation of metals
IN Raskin, Ilya, Manalapan, NJ, United States
Kumar, Nanda P. B. A., New Brunswick, NJ, United States
Douchenkov, Slavik, East Brunswick, NJ, United States
PA PhytoTech, Inc., Morristown, NJ, United States (U.S. corporation)
PI US 5364451 19941115
AI US 1993-73258 19930604 (8)
DT Utility
FS Granted
LN.CNT 671
INCL INCLM: 075/710.000
INCLS: 071/009.000; 210/602.000; 210/682.000; 210/688.000
NCL NCLM: 075/710.000
NCLS: 071/009.000; 210/602.000; 210/682.000; 210/688.000
IC [5]
ICM C21B009-00
ICS C22B009-00
IPCI C21B0009-00 [ICM,5]; C22B0009-00 [ICS,5]
IPCR B09C0001-10 [I,A]; B09C0001-10 [I,C*]; C12N0015-82 [I,A];
C12N0015-82 [I,C*]
EXF 075/710; 210/602; 210/682; 210/688; 071/9
CAS INDEXING IS AVAILABLE FOR THIS PATENT.